

IN THE CLAIMS

1. (Currently Amended) A method comprising:

determining whether a first digital signal processor needs one of a plurality of service programs stored in an overlay memory, wherein the ~~overlay memory stores a~~ plurality of service programs comprises service programs associated with voice communication, fax communication, modem communication, video communication, and audio communication; and

scheduling delivery of ~~delivering~~ the needed service program to the first digital signal processor from the overlay memory over a host port interface bus based on one or more factors including size of the needed program, location of the needed program in the overlay memory, and whether a second digital signal processor also needs the needed program.

2. (Original) The method of claim 1, further comprising generating a data packet from a pulse code modulated data stream using the service program.

3. (Original) The method of claim 2, further comprising receiving the pulse code modulation data stream from a public switched telephone network.

4. (Original) The method of claim 2, further comprising:
transmitting the data packet over an internet protocol network.

5. (Previously Presented) The method of claim 2, wherein the data packet includes data comprising at least one of voice communication, fax communication, modem communication, video communication, and audio communication.

6. (Original) The method of claim 1, further comprising:
receiving a packet from an internet protocol network;
generating a pulse code modulation data stream from the packet using the service program; and
transmitting the pulse code modulation data stream over a public switched telephone network.

7. (Currently Amended) An apparatus comprising:
means for determining whether a first digital signal processor needs one of a plurality of service programs stored in an overlay memory, wherein the ~~overlay memory~~ stores a plurality of service programs comprises service programs associated with voice communication, fax communication, modem communication, video communication, and audio communication; and

means for scheduling delivery of ~~delivering~~ the service program to the first digital signal processor from the overlay memory over a host port interface bus based on one or more factors including size of the needed program, location of the needed program in the overlay memory, and whether a second digital signal processor also needs the needed program.

8. (Original) The apparatus of claim 7, further comprising means for generating a data packet from a pulse code modulated data stream using the service program.

9. (Original) The apparatus of claim 8, further comprising means for receiving the pulse code modulation data stream from a public switched telephone network.

10. (Original) The apparatus of claim 8, further comprising:
means for transmitting the data packet over an internet protocol network.
11. (Previously Presented) The apparatus of claim 8, wherein the data packet includes data comprising at least one of voice communication, fax communication, modem communication, video communication, and audio communication.
12. (Original) The apparatus of claim 7, further comprising:
means for receiving a packet from an internet protocol network;
means for generating a pulse code modulation data stream from the packet using the service program; and
means for transmitting the pulse code modulation data stream over a public switched telephone network.
13. (Currently Amended) A computer readable medium having instructions which, when executed by a processing system, cause the system to:
determine whether a first digital signal processor needs one of a plurality of service programs stored in an overlay memory, wherein the ~~overlay memory stores a~~ plurality of service programs comprises service programs associated with voice communication, fax communication, modem communication, video communication, and audio communication; and
schedule delivery of ~~deliver~~ the service program to the first digital signal processor from the overlay memory over a host port interface bus based on one or more factors including size of the needed program, location of the needed program in the overlay memory, and whether a second digital signal processor also needs the needed program.

14. (Original) The medium of claim 13, wherein the executed instructions further cause the system to generate a data packet from a pulse code modulated data stream using the service program.

15. (Original) The medium of claim 14, wherein the executed instructions further cause the system to:

receive the pulse code modulation data stream from a public switched telephone network.

16. (Original) The medium of claim 14, wherein the executed instructions further cause the system to:

transmit the data packet over an internet protocol network.

17. (Original) The medium of claim 13, wherein the service program provides a service selected from the group comprising voice communication, fax communication, modem communication, video communication, and audio communication.

18. (Original) The medium of claim 13, wherein the executed instructions further cause the system to:

receive a packet from an internet protocol network;

generate a pulse code modulation data stream from the packet using the service program; and

transmit the pulse code modulation data stream over a public switched telephone network.

19. (Currently Amended) An apparatus comprising:

an interface manager to determine a first digital signal processor needs one of a plurality of service programs stored in an overlay memory, wherein the ~~overlay memory~~ stores a plurality of service programs comprises service programs associated with voice communication, fax communication, modem communication, video communication, and audio communication;

a overlay manager to schedule delivery of the service program to the first digital signal processor from the overlay memory over a host port interface bus based on one or more factors including size of the needed program, location of the needed program in the overlay memory, and whether a second digital signal processor also needs the needed program; and

a host port interface bus to deliver the service program to the digital signal processor from the overlay memory.

20. (Previously Presented) The apparatus of claim 19, further comprising the overlay memory, the overlay memory to store a plurality of algorithms.

21. (Previously Presented) The apparatus of claim 20, further comprising the digital signal processor.

22. (Previously Presented) The apparatus of claim 21, further comprising a plurality of the digital signal processors coupled to the host port interface bus.

23. (Previously Presented) The apparatus of claim 22, further comprising a packet pump comprising:

the interface manager; and

a host port interface bus manager coupled to the host port interface bus.

24. (Previously Presented) The apparatus of claim 23, further comprising a public switched telephone network coupled to transmit a pulse code modulation data stream to the packet pump.

25. (Previously Presented) The apparatus of claim 23, wherein the overlay memory is a static random access memory.

26. (Cancelled)

27. (Currently Amended) The method of claim 1 ~~[[26]]~~, wherein the needed service program comprises an algorithm and wherein scheduling delivery ~~delivering~~ comprises downloading the algorithm to the digital signal processor.